STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
State Revolving Fund Loan Program
Life & Casualty Tower, 8th Floor
401 Church Street
Nashville, TN 37243

FINDING OF NO SIGNIFICANT IMPACT
Approval of Facilities Plan
Maury County Water System (Maury County), Tennessee
Project No. DWSRF 2007-072

August 21, 2006

The National Environmental Policy Act requires federally designated agencies to determine whether a proposed major agency action will significantly affect the environment. One such major action, defined by the Safe Drinking Water Act (SDWA), is the approval of a facilities plan prepared pursuant to EPA 816-R-97-005, Final Guidelines. In making this determination, the State Revolving Fund Loan Program assumes that all facilities and actions recommended by the plan will be implemented. The State's analysis concludes that implementing the plan will not significantly affect the environment; accordingly, the State Revolving Fund Loan Program is issuing this Finding of No Significant Impact (FNSI) for public review.

The Maury County Water System has completed the facilities plan entitled "Facilities Plan for Water System Improvements" dated June 2005. The facilities plan provides recommendations to expand the existing water distribution system serving Maury County, Tennessee. This project will consist of installation of approximately 8,000 linear feet (LF) of 16-inch water main, a new 350-gallon per minute (gpm) pump station, and a new one million gallon (1-MG) water storage tank in the Rock Springs area. The total estimated project cost is $1,650,000. A Drinking Water State Revolving Fund (DWSRF) loan in the amount of $1,650,000 has been requested for this project.

Attached is an Environmental Assessment containing detailed information supporting this action. Comments supporting or disagreeing with this proposed action received within 30 days of the date of this FNSI will be evaluated before we make a final decision to proceed. If you wish to comment or to challenge this FNSI, send your written comment(s) to:

Mr. Sam R. Gaddipati, Manager
State Revolving Fund Loan Program
Tennessee Department of Environment and Conservation
Life & Casualty Tower, 8th Floor
Nashville, TN 37243-1533

or contact him by telephone at (615) 532-0445 or by e-mail at sam.gaddipati@state.tn.us.

ENVIRONMENTAL ASSESSMENT
Maury County Water System, Tennessee
Project No. DWSRF 2007-072

August 21, 2006

A. PROPOSED FACILITIES AND ACTIONS; FUNDING STATUS

The Maury County Water System (MCWS) has completed the facilities plan entitled "Facilities Plan for Water System Improvements" dated June 2005. The facilities plan provides recommendations to expand the existing water distribution system serving Maury County, Tennessee. This project will consist of installation of approximately 8,000 linear feet (LF) of 16-inch water main, a new 350-gallon per minute (gpm) pump station, and a new one million gallon (1-MG) water storage tank in the Rock Springs area. The total estimated project cost is $1,650,000. A Drinking Water State Revolving Fund (DWSRF) loan in the amount of $1,650,000 has been requested for this project. The project location is indicated on Figure No. 1 of this Environmental Assessment. Descriptions of the proposed facilities and actions included in this project are listed below:

FUNDING STATUS

The facilities described above comprise the scope of the DWSRF Loan No. 2007-072 scheduled for funding in fiscal year 2007. The estimated project costs are summarized in the following tabulation:

PROJECT CLASSIFICATIONS	COSTS ($)
Design Fees	70,000.00
Engineering Basic Fees	29,000.00
Other Engineering Fees	31,000.00
Resident Inspection	70,000.00
Construction	1,450,000.00
TOTAL	**1,650,000.00**
DWSRF Loan	1,650,000.00

B. EXISTING ENVIRONMENT

Maury County is located in middle Tennessee. MCWS provides water to customers in the mainly rural areas throughout Maury County. Existing environmental features are described below:

SURFACE WATERS

Surface waters within the areas served by MCWS include the Duck River, Fountain Creek, Silver Creek, Catheys Creek, Leipers Creek, Little Bigby Creek, Big Bigby Creek, Dry Creek, Falls Creek, Sugar Fork Creek, Isbell Creek, Scotts Creek, Quality Creek, Rutherford Creek, Aenon Creek, McCutcheon Creek, Carters Creek, and Grassy Branch. Designated uses for the Duck River, Big Bigby Creek, Little Bigby Creek, Catheys Creek, Rutherford Creek, and Sugar Fork Creek include domestic water supply, industrial water supply, fish and aquatic life, recreation, irrigation, and livestock watering and wildlife.

GROUNDWATER

Groundwater in the MCWS service area occurs under relatively shallow, unconfined conditions in fractures/solution cavities in the underlying Ordivician-age calcareous rock formations. Wells in the area have been drilled up to 170 feet deep and generally provide good-quality water.

SOILS

The soils in the area range from shallow to deep. Few of them are more than six feet deep to level bedded limestone. Outcrops of limestone are common, and there are numerous areas where the rock is at or near the surface. Generally, the soils are medium acid and strongly acid and become less acid as limestone bedrock is approached. More than one-half of the soils are high in phosphorous. They are predominantly well drained and have subsoils high in clay. Soils in areas where lines will be placed include Bodine cherty silt loam, Dellrose cherty silt loam, Huntington cherty silt loam, Mimosa cherty silt loam, and Mountview silt loam.

TOPOGRAPHY

The common elevation of the area ranges between 600 and 800 feet above sea level. Isolated hills rise to elevations of 900 to 1,100 feet above sea level. The area is characterized by undulating and rolling terrain and by meandering, low-gradient streams.

OTHER ENVIRONMENTAL FEATURES

No wild or scenic rivers or unique agricultural, scientific, cultural, ecological, or natural areas were identified in the MCWS service areas.

C. EXISTING WATER FACILITIES

TREATMENT FACILITIES

MCWS does not own water treatment facilities. MCWS purchases the majority of its water from the Columbia Power and Water System (CPWS) and a limited amount from the City of Spring Hill. Both of these cities obtain raw water from the Duck River for treatment at their respective water treatment plants.

DISTRIBUTION SYSTEM

There are approximately 400 miles of PVC waterline ranging in size from 2-inch to 8-inch throughout the MCWS. The existing pipes are less than 20 years old and are in good condition. The average water loss is 12%. MCWS has 10 tanks ranging in capacity from 100,000 gallons to 400,000 gallons with a total storage capacity of 2,200,000 gallons.

D. NEED FOR PROPOSED FACILITIES AND ACTIONS

MCWS currently serves approximately 5,825 customers throughout Maury County. In the eastern part of the system (Rock Springs Area), insufficient storage and pumping capacity exist in the distribution network. This condition leads to insufficient pressures to some customers at times. The proposed improvements will allow MCWS to remain in compliance with the Tennessee Department of Environment and Conservation's minimum residential pressure requirement of 20 pounds per square inch (psi) by increasing pressure and flow.

EXISTING AND PROJECTED FACILITY CONDITIONS

POPULATION	EXISTING (2006)	PROJECTED (2026)
MCWS Service Area	31,921	56,396
Percent Served	38.4%	45.7%
WATER NEEDS (gallons per day)	EXISTING (2005)	PROJECTED (2025)
Residential	1,454,000	2,348,640
Commercial/Industrial	25,920	41,760
Loss	180,000	290,000
TOTAL	1,659,920	2,680,400

E. ALTERNATIVES ANALYSIS

During peak demand, CPWS is unable to supply adequate water to MCWS resulting in low pressure to MCWS customers. Several alternatives to provide customers with adequate pressure and water supply were evaluated in the June 2005 Facilities Plan. Discussions of the evaluation of these alternatives and the recommended plan follow:

Alternative 1: No Action

The result of a no-action alternative would not allow MCWS to remain in compliance with minimum pressure requirements. Currently, MCWS has zero storage in the eastern portion (Rock Springs Area) of their system. Complete dependency on (CPWS) becomes uncertain at peak demand periods. Therefore, this alternative was rejected.

Alternative 2: Construct a New Pump Station, 8-inch Water Distribution Lines, and 1-MG Water Storage Tank in 2006; Upgrade Pump Station in 2013

This alternative proposed to replace the 6-inch water distribution lines along Rock Springs Road and Sowell Mill Road with 8-inch water distribution lines. A pump station on Rock Springs Road will be installed to pump water from the supply lines on Rock Springs Road and Luther Sharp Road to the new 1-MG tank to provide adequate pressures to the residents of the area. A new 8-inch water distribution line would be installed along Luther Sharp Road from the existing 4-inch water line on the east side of Interstate 65 to the new pump station. The pump station will need to be upgraded by 2013 to overcome head losses caused by increased demand. This was not the most cost-effective alternative and was rejected.

Alternative 3: Construct a New Pump Station, 8-inch Water Distribution Lines, and 1-MG Water Storage Tank in 2006; Construct Additional 8-inch Water Distribution Line in 2013

Alternative 3 is identical to Alternative 2, except that in 2013, instead of adding upgrades to the pump station to overcome head losses, a second 8-inch water distribution line would be installed along Rock Springs Road to the split at Luther Sharp Road in order to overcome head losses and provide adequate water to customers. This was not the most cost-effective alternative and was rejected.

Alternative 4: Construct a New 16-inch Water Distribution Line, Pump Station, and 1-MG Water Storage Tank

This alternative proposes to install a new 16-inch water line along Luther Sharp Road to the proposed new 1-MG tank on Dean Hill from the existing 4-inch water line on the east side of Interstate 65. A new 350-gpm pump station would be constructed at the intersection of Rock Springs and Luther Sharp Roads to pump water to the new tank. This will provide increased pressure and flow to the eastern portion of Maury County. This is the most cost-effective alternative and is selected.

F. ENVIRONMENTAL CONSEQUENCES; MITIGATIVE MEASURES

During the construction phase, short-term environmental impacts due to noise, dust, mud, disruption of traffic, runoff of silt with rainfall, etc., are unavoidable. Minimization of these impacts will be required; however, many of these minimization measures will only be temporary. Using the following measures to prevent erosion will minimize impacts on the environment:

1. Specifications will include temporary and permanent measures to be used for controlling erosion and sediment.
2. Soil or landscaping maintenance procedures will be included in the specifications.
3. The contractor will develop an Erosion Control Plan. It should contain a construction schedule for each temporary and permanent measure controlling erosion and sediment. It should include the location, type, and purpose for each measure and the times when temporary measures will be removed or replaced.

These measures, along with requiring the contractor to return the construction site to as-good-as or better-than its original condition, will prevent any adverse impacts due to erosion.

A Section 10 and/or a Section 404 Permit will be obtained from the U.S. Army Corps of Engineers, if required, prior to the start of construction.

The State Historic Preservation Officer has reviewed the project and has determined that the project will not impact known significant cultural resources.

No prime or unique agricultural lands or wetlands were identified and therefore will not be adversely affected. Effects on flora and fauna will be confined and temporary. No endangered species of flora or fauna were identified within the proposed construction corridor.

G. PUBLIC PARTICIPATION; SOURCES CONSULTED

A Public Meeting was held on August 14, 2006, 5:30 p.m., local time. User charges and the selected plan for waterline extensions, pump stations, and storage tanks were described to the public, and their input was received. This agency is not aware of any unresolved public objections that may have been voiced before or after the public meeting regarding this project.

The existing user charges are sufficient to repay the DWSRF loan. Therefore, no incremental increase in user charges will be required.

Sources consulted about this project for information or concurrence were:

1. Tennessee Department of Agriculture
2. Tennessee Department of Economic and Community Development
3. Tennessee Department of Environment and Conservation (TDEC), Division of Air Pollution Control
4. Tennessee Department of Transportation
5. TDEC, Division of Groundwater Protection
6. Tennessee Historical Commission
7. TDEC, Division of Archaeology
8. TDEC, Division of Natural Areas
9. TDEC, Division of Solid Waste Management
10. TDEC, Division of Water Pollution Control
11. TDEC, Division of Water Supply
12. Tennessee Wildlife Resources Agency
13. United States Army, Corps of Engineers
14. United States Fish and Wildlife Service
15. Maury County

H. SPECIAL CONDITIONS

The State Revolving Fund loan agreement will have the following special condition:

The Maury County Water System shall obtain applicable Section 10/404 Permits from the U. S. Army Corps of Engineers. A letter from the Corps stating that the permits are not needed will obviate this requirement.